

Please amend the application as follows:

In the Claims ✓

Please add Claim 60 and amend Claim 26 as follows:

26. The method of Claim 25 further comprising:

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- d) determining the frequency of said two or more point mutations which decrease in the aged population in said selected gene of one or more intermediate age-specific populations;
  - e) determining the age-specific decline of said two or more point mutations; and
  - f) comparing the age-specific decline determined in e) with the [theoretical] expected age-specific decline of a set of harmful alleles which cause a particular mortal diseases, [X(h,t),] and determining if the functions are significantly different, wherein a determination that the age-specific decline determined in e) is not significantly different from the theoretical age-specific decline of harmful alleles which cause one or more mortal diseases further indicates that said selected gene carries a harmful allele and has a high probability of being causal of said one or more mortal diseases.

✓  
Please add Claim 60.

---60. The method of Claim 25, wherein said inherited point mutations are identified using a method that comprises:

- B2
- a) providing a first pool of DNA fragments comprising a gene or portion thereof, wherein said pool is isolated from a population;
  - b) amplifying a target region of said gene or portion from each of said fragments in a high fidelity polymerase chain reaction (PCR) under conditions suitable to produce double stranded DNA products which contain a terminal high